ACTIVE DUTY MILITARY DEPLOYMENTS:
A RESPITE FROM JOB STRESSORS AND
BURNOUT FOR AIR FORCE ACQUISITION
SUPPORT PERSONNEL

THESIS

Tonya J. Bronson, Captain, USAF
AFIT/GAQ/ENV/04M-02

DEPARTMENT OF THE AIR FORCE
AIR UNIVERSITY
AIR FORCE INSTITUTE OF TECHNOLOGY

Wright-Patterson Air Force Base, Ohio

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AND BURNOUT FOR AIR FORCE ACQUISITION SUPPORT PERSONNEL

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Tonya J. Bronson, BS

Captain, USAF

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Tonya J. Bronson, BS
Captain, USAF

Approved:

//SIGNED//	11 Mar 04
Daniel T. Holt (Chairman)	date

//SIGNED//	11 Mar 04
Timothy S. Reed (Member)	date

//SIGNED//	11 Mar 04
Bryan J. Hudgens (Member)	date

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Abstract

To explore the possible respite effects of deployments, active duty Air Force acquisition support personnel who were either scheduled to deploy (n = 74), or recently returned from deployment (n = 34) were surveyed. Analysis of variance compared the pre- and post-deployment group's perceived levels of burnout, emotional exhaustion, role ambiguity, role conflict, self-efficacy, organizational commitment, contingent rewards, operating conditions, co-worker satisfaction, and overall job satisfaction. Although the results indicated the differences were not large enough to be significant, many of the variables behaved as hypothesized. Specifically, burnout, emotional exhaustion, role conflict, contingent rewards, and co-worker satisfaction were all higher in the post-deployment group. Implications of the findings are discussed.

*To my family and friends, whose prayers and support
have sustained me through this program*

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Chapter 1

Introduction and Literature Review

Background

Choosing employment in the United States Armed Forces is much more than just an occupational decision. It is the acceptance of a unique military environment that determines much of the individual's lifestyle far beyond the boundaries of work (Alpass, Long, Chamberlain, & MacDonald, 1997). For instance, the military has the final say on where an individual will live and work, how long they will live and work there, and what job they will do while living there. The military is also able to send its members into distant and, sometimes, hostile locations all over the world to support national objectives. The assignment to these locations can last anywhere from several months to several years. Most military members are aware of this unusual way of life, and accept these responsibilities when they choose to serve in the armed forces. However, recent world events and political mandates are altering the environment in which these individuals serve. Specifically, the frequency and duration of these overseas assignments are changing. That is, military members are being asked to go overseas more often for longer periods due to the expeditionary obligations the military faces (Jumper, 2003).

These increasing requirements have been occurring at the same time that resources have been cut significantly. According to Reed and Segal (2000), defense spending has been reduced by approximately 38%, and the military force structure has been downsized by roughly 35%. At the same time, the use of military force has grown by almost 300%. Much of this increased demand is due to the changing mission of the military. In this new security era, the military is now expected to act as the

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"peacekeepers" of the world, safeguarding American and global interests in an increasing number of international locations (Reed & Segal, 2000).

The more frequent and longer overseas assignments, coupled with the reduction in resources, has created an environment that forces military members to work longer and harder hours (Reed & Segal, 2000). Many are concerned that these changing demands will cause undue strain on military members. With a lower budget and less manpower, the military is expected to provide the same level of domestic security, as well as be involved internationally to a greater extent. Such demanding requirements may lead to increased or chronic job stress. The presence of chronic job stressors can lead to burnout (Etzion, Eden, & Lapidot, 1998). The military has sought to counteract these pressures with support programs such as family support centers and training in stress management. They have also stressed the need for commanders to ensure that each military member is taking his or her allotted annual leave.

Interestingly, the short overseas assignments military members face during their careers may also serve as a source of relief from the demands of the jobs they have at stateside installations. In a recent study of active reserve service members in the Israel Defense Forces, researchers found that annual reserve service can have respite qualities equivalent to vacations (Etzion, et al., 1998). Despite being engaged in rigorous military training and job duties, these reserve service members indicated that the annual activation period provided a respite from their civilian jobs. In many ways, annual reserve service is similar to active duty deployments. Both involve hard work, but provide a change of work and environment from the individual's normal duties and stressors. If such positive

effects are possible with annual reserve service, then it is possible that the same effects may occur with active duty deployments.

In this current environment, it is of interest to see if, in addition to fulfilling national security objectives, the overseas deployments are beneficial to military members in other ways. This research tested the theory that active duty military deployments can serve as a respite from home station job stressors and burnout. Though the research in this area is relatively new and limited, several empirical studies have been conducted to show that an extended break away from the job can have a positive effect in reducing job stress and burnout (Lounsbury & Hoopes, 1986; Eden, 1990; Westman & Eden, 1997; Etzion, et al., 1998; Westman & Etzion, 2001; Benshoff & Spruill, 2002). The discussion will begin by reviewing the literature on job stress and burnout followed by a review of the effects of vacations, sabbaticals, and reserve service on the two. Next, a series of hypotheses will be developed. In particular, they address how deployments for active duty military members may serve as an effective respite from work.

Job Stress and Burnout

Stress can be defined as a "relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being" (Lazarus & Folkman, 1984). These environmental conditions can be persistent (i.e., chronic stress) or discrete periods of time (i.e., acute stress). Persistent or chronic stress is influenced by factors such as role conflict, role ambiguity, workload, turnover intention, lack of job satisfaction, and lack of organizational commitment (Boles, Dean, Ricks, Short & Wang, 2000). In contrast, "critical job events" can lead to discrete or acute stress. Eden (1990) describes "critical

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job events" as those events that place excessive, transient demands on individuals. Often unexpected, the shutdown of office computers for a period of time where the shutdown creates a backlog of work might be an example of a critical job event that serves as an acute source of stress.
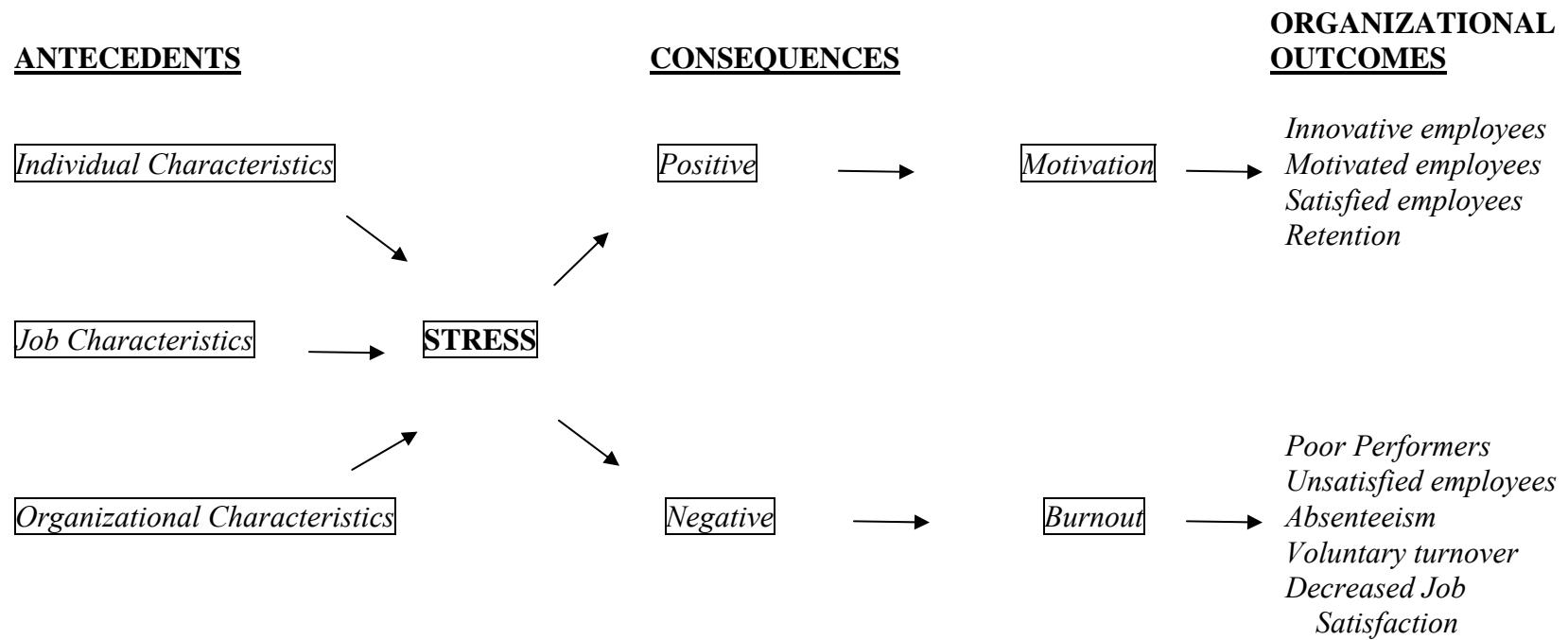
Given that stress that is said to jeopardize the well-being of the individual (Lazarus & Folkman, 1984), it is not surprising that considerable research has been directed toward a better understanding of the factors that contribute to stress (i.e., antecedents) as well as the outcomes that are observed when stress is present. While the specifics of the research diverge considerably, research has suggested that stress is influenced by personal characteristics (e.g., individual capacity to cope), job and role characteristics (e.g., role clarity), and organizational characteristics (e.g., rewards systems).

Figure 1 illustrates a common model of stress. While this model is not tested in this research, it does serve as an outline for the discussion of the research that has been done on stress, the factors that contribute to stress, and the outcomes and organizational consequences associated when stress is experienced. While it is beyond the scope of this discussion to review every variable that has been studied, many of the most common will be discussed in the subsequent sections.

Antecedents

Both the presence of negative job characteristics, as well as the absence of positive job characteristics, can lead to stress (Etzion, et al., 1998). That is, the demands of a job and the lack of appropriate job rewards can both lead to stress. As stated, three broad categories divide the common sources of stress in a work setting,

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Figure 1. Common Model of Stress

ANTECEDENTS   **CONSEQUENCES**   **ORGANIZATIONAL OUTCOMES**

Individual Characteristics   *Positive* → *Motivation* → *Innovative employees*
Motivated employees
Satisfied employees
Retention

Job Characteristics → **STRESS**

Organizational Characteristics   *Negative* → *Burnout* → *Poor Performers*
Unsatisfied employees
Absenteeism
Voluntary turnover
Decreased Job
Satisfaction

namely personal characteristics, job and role characteristics, and organizational characteristics.

Personal characteristics. Personal characteristics include demographics, social support, and personal expectations (Cordes & Dougherty, 1993). The various personal attributes, mind-frames, and circumstances an individual brings to the job may create a source of stress at work. For instance, in a study of officers and support personnel in a police department, researchers found that females experienced emotional exhaustion (an outcome of stress discussed later in this chapter) more frequently than their male counterparts (Gaines & Jermier, 1983). Additionally, the underlying premise of stress may not be due to demographics, such as gender, alone. Challenges that individuals face off-the-job that are related to the individual can also be a source of stress. For example, Wolpin and colleagues (1991) found that marital dissatisfaction can result in greater work stress. Indeed, both an individual's personal characteristics and the life circumstances he or she bring to the job can result in increased work stress.

Job and role characteristics. Job and role characteristics refer to variables such as role conflict, role ambiguity, and role overload (Cordes & Dougherty, 1993). That is, the specific make up of a particular job may also create work stressors for an individual. In their study of public school teachers, Cooke and Rousseau (1984) found that work-role expectations can be stress-inducing. They found work-role expectations to be related to two specific stressors, work overload and interrole conflict. Specifically, they found that as work role expectations increase, an individual's perceived work overload increases. Also, as work expectations and family role expectations increase, interrole conflict increases (Cooke & Rousseau, 1984).

Organizational characteristics. Organizational characteristics refer to variables such as job context, rewards, and punishments (Cordes & Dougherty, 1993). The environment an organization creates for an individual to work in can serve as another considerable source of work stressors. A study of school-based educators showed that negative work settings characteristics (e.g., unclear institutional goals and poor supervision) resulted in greater work stressors (Wolpin, Burke, & Greenglass, 1991). Further, Kanner and colleagues (1978) found that the presence of negative work features (to include negative consequences) and the lack of positive work features (to include tangible rewards) are substantial and independent sources of stress.

While many of these studies are for very specific settings and circumstances, they demonstrate that under the right conditions personal characteristics, job and role characteristics, and organizational characteristics can induce stress. These three dynamics can work together or independently to create a stressful work experience for individuals. Additionally, all three dynamics can have very relevant outcomes and consequences for both the individual and the organization.

Outcomes

Research on job stress has shown significant associations with many important work outcomes. These outcomes can have both positive and negative consequences for the individual and the organization. As for positive outcomes, research seems to support the idea that some forms of stress can act as a facilitator toward a better work experience and better performance (Jones, 1993; Cavanaugh, Boswell, Roehling, & Boudreau, 2000). Specifically, an appropriate level of job stress creates employee motivation.

The literature suggests that one stressor, role conflict, requires workers to be flexible, open to different viewpoints, and expand their sources of information (Jones, 1993). In fact, in her year-long study of public child welfare directors, Jones (1993) found support for the contention that role conflict can be energizing. Additionally, Cavanaugh and colleagues (2000) found that challenge-related stress (e.g., deadlines and taxing job demands) is positively related to job satisfaction and negatively related to job search. These findings support the idea that certain challenge-related job pressures can lead to positive work outcomes. When workers are challenged appropriately, it appears to have the effect of motivating them to work harder and rise to the challenges. These positive outcomes of job stress, however, may only be reaped to a point before they become detrimental.

The literature has explored the negative aspects of stress more frequently. As stated, the presence of chronic stressors can lead to burnout (Etzion et al., 1998). Burnout can be viewed as a unique form of stress (Cordes & Dougherty, 1993). Burnout is usually characterized by emotional exhaustion, feelings of cynicism, detachment from the job, a sense of ineffectiveness, and lack of accomplishment (Maslach, Schaufeli & Leiter, 2001).

Several studies have shown that the common sources of work stress (job and role characteristics, organizational characteristics, and personal characteristics) can contribute to one or more of the feelings associated with burnout, with emotional exhaustion being the most prevalent feeling that is experienced. In one study of elementary and secondary school teachers, researchers found that emotional exhaustion was strongly associated with role conflict (Jackson, Schwab, & Schuler, 1986). Gaines and Jermier's (1983)

study of a police organization found that promotion opportunity (or rather, the lack thereof) had a significant relationship to emotional exhaustion as a predictor of both frequency and intensity of emotional exhaustion. They also found that administrative practices such as inflexible rules positively correlated with the frequency with which participants experienced emotional exhaustion (Gaines & Jermier, 1983). Kirmeyer and Dougherty's (1988) study of police radio dispatchers found that support from superiors moderated the effects of perceived and objective work loads. Furthermore, participants working under a high perceived load with high social support engaged in more coping actions and experienced less tension-anxiety than those with low support (Kirmeyer & Dougherty, 1988). These studies support the theory that chronic stressors can lead to burnout. Whether the sources of stress were job-related (role conflict), organizational (promotion opportunity and administrative practices), or personal (social support) the result was the same. The employees who experienced the stressors reported higher levels of one or more of the dimensions of burnout than those who did not experience the stressors.

Organizational Consequences

When workers experience an appropriate level of job stress (i.e., positive stress), organizations can potentially reap several benefits. As stated, appropriate stress levels appear to have a motivating effect on employees. Creating a challenging but manageable work environment appears to bring out the potential in an employee. The likely result is a creative, critical thinking worker who displays strong job performance and satisfaction with his or her job. Additionally, employee retention could result as workers would be less likely to engage in job search behaviors.

Burnout, however, can have damaging physical, emotional, interpersonal, attitudinal, and behavioral consequences (Cordes & Dougherty, 1993). As a result, organizations are likely to suffer a variety of work-related employee problems. Some specific organizational outcomes include poor job performance, increased turnover, increased absenteeism, intentions to leave the job, and decreased job satisfaction (Wright & Bonnett, 1997; Wright & Cropanzano, 1998; Firth & Britton, 1989; Saxton, Phillips, & Blakeney, 1991; Wolpin, Burke, Greenglass, 1991). Wright and Bonnets' (1997) study of human services personnel empirically tested the relationship between burnout and work performance. It revealed that the emotional exhaustion component of burnout leads to subsequent poor performance (Wright & Bonnett, 1997). Later, Wright and Cropanzano (1998) found that emotional exhaustion is also related to job turnover. They found support for emotional exhaustion as a predictor of both job performance and job turnover (Wright & Cropanzano, 1998). Firth and Britton's (1989) study of a nursing staff discovered that both emotional exhaustion and depersonalization produced negative work outcomes. High emotional exhaustion predicted the frequency of absences of more than seven days, and depersonalization served as a small but significant predictor of job turnover (Firth & Britton, 1989). In their study of the airline reservations service sector, Saxton and colleagues (1991) found that emotional exhaustion was significantly related to intentions to leave, absenteeism, and actual job change, with the strongest relationship between emotional exhaustion and intentions to leave. A study of teachers and school administrators demonstrated that psychological burnout appears to have a causal relationship with job satisfaction, and over time decreases job satisfaction (Wolpin et al., 1991). These studies clearly demonstrate that employee burnout can have real and

measurable costs for organizations. They also seem to support the notion that the emotional exhaustion component of burnout may have the most damaging consequences for organizations.

Preventing Burnout

With these ideas in mind, organizations seem interested in minimizing the stressors that can lead to burnout. Both eliminating negative job factors and promoting positive events can reduce the occurrence of burnout (Justice, Gold & Klein, 1981). Additionally, the availability of organizational and personal social support can help to moderate burnout. Social support in general, whether from a supervisor or family member, provides the worker with valuable coping resources to deal with stressful work environments (Cordes & Dougherty, 1993).

However, much of the work that has suggested ways to prevent burnout has two general characteristics. First, the recommendations are employee-focused. That is, the recommendations suggest that it is the individuals' responsibility to adapt to the organizational setting with the stress encountered at work. These employee-focused recommendations offer a series of steps or techniques that can be used by employees to better cope and adapt to job and organizational issues that are confronted. Second, the recommendations seem to be anecdotal bits of advice that are not completely grounded in the empirical literature.

Some of these recommendations have been presented by researchers who have completed extensive studies on burnout. Typical of these recommendations, Maslach and Leiter (1999), two leaders in burnout research, reported six ways to prevent job burnout including suggestions such as ensuring a manageable workload, increasing team

cohesiveness and a feeling of community, and creating opportunities for rewards (Maslach & Leiter, 1999). Other articles offer helpful tips that range from taking breaks, to eating well and exercising, to soul searching and goal setting. Table 1 provides summaries of a selection of these articles. Such articles provide practical steps for both the individual and the organization in reducing employee burnout.

Continuum of Respite

Perhaps the most common method organizations use to decreasing the burnout phenomenon, however, is a respite from work. The types of respites offered by organizations might be viewed along a continuum that captures the time spent on work and non-work related activities (illustrated in Figure 2). At one end of the spectrum might be a complete break from work, such as the annual vacation. The opposite end of the spectrum might be the performance of identical work activities in a different environment. The current study aimed to show that the latter type of respite can have the same ameliorative benefits as the former type of respite on job stress and burnout.

Vacations

Vacations are placed at one end of the respite continuum. Vacations have long been viewed as the traditional source of relief from job stressors and burnout (Etzion et al., 1998). While some individuals may choose to continue to work during vacations, this study refers to them in the truest sense as a complete cessation of work activities. That is, vacations are a complete break from work where individuals are temporarily relieved from all job duties and away from their office environment. Vacations enable workers to

Table 1. Examples of Burnout Prevention Articles

Source	Burnout Prevention Recommendations
Evans (1992)	Lighten up; Learn to relax; Delegate responsibility; Schedule down time; Express feelings and emotions; Learn to say "no"; Improve work skills; Recognize energy patterns and schedule work accordingly; Never schedule more than one stressful activity at the same time; Engage in outside physical activities; Break projects down into smaller parts; Strive for success
Alessandra (1993)	Limit number of working hours; Have clearly written goals; Learn to say no; Learn to delegate; Exercise; Break with routine; Relax; Eat lunch away from the office; Take vacations; Spend more time with family and friends; Take time for yourself; Do not take life so seriously
American Salesman (1999)	Try to establish control of your job; Do some soul searching; Set realistic goals; Talk to a supervisor or other coworkers about your work and its problems; Reward yourself when you finish a tough project with a new gadget or project; Take time out for a few minutes when things seem about to overwhelm you; Think of a way to turn a task that turns you off into one you will like and ask for your boss's approval; Give yourself space
Maslach & Leiter (1999)	Six key areas to prevent burnout: a manageable workload, a sense of control, the opportunity for rewards, a feeling of community, faith in the fairness of the workplace, shared values
Alexander (2000)	Take control with time management; Plan the night before work; Build and action list of everything you have to do and want to do; Keep a diary; Use daily planner books; Make time for friends and family; (Advice to management) Provide flexibility in work hours and work arrangements; Avoid forcing people to do the same work over and over; Consider outsourcing monotonous work
Alexander (2002)	Leave the office at a regular time; Do not check e-mail during vacation; Delegate tasks; Set priorities and goals; Develop your hobbies; Create rituals that will help you unplug from work; Build your circle of friends
Clarke (2003)	Eat well and exercise; Use technology to your advantage; When in doubt, throw it out; Reach out; Don't skip your breaks and vacation days; Get your rest; Use slow, rhythmic deep breathing; Before you over commit to others, take care of yourself; Take it easy

Figure 2. Respite Continuum

**Respite involving
no work
(0% WORK)**

**Respite completely
involving work
(100% WORK)**

Vacations   *Sabbaticals*   *Work Change
(Reserve Service)*

*Active Duty
Military
Deployments*
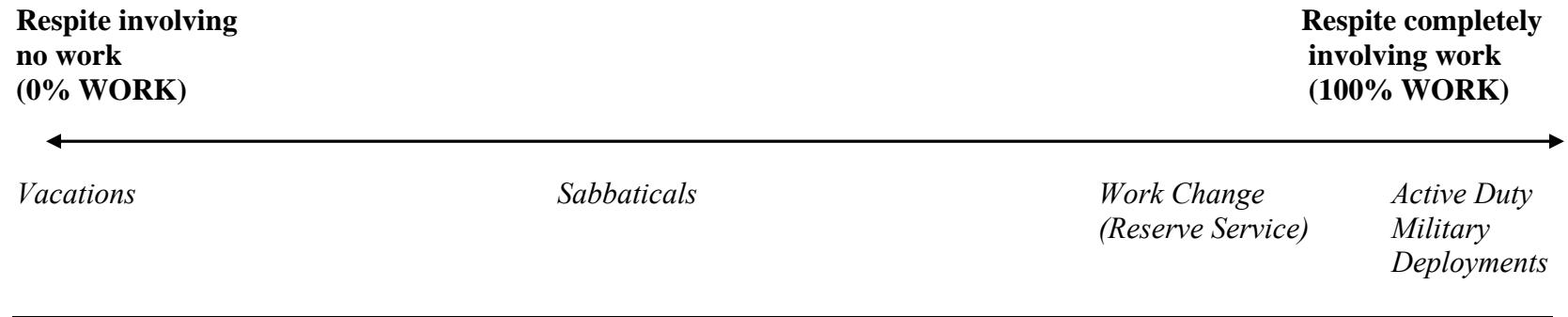
pursue personal interests, and can create an environment where personal leisure and family are of greater importance than the work situation (Lounsbury & Hoopes, 1986).

Specifically, studies have shown that vacations can relieve both acute and chronic job stress (Eden, 1990; Westman & Etzion, 2001). This relief in job stress also allows for a reduction in burnout (Westman & Etzion, 2001). While the relief from job stress is not permanent (i.e., stress levels return to normal just three weeks after a vacation), the reductions in burnout tend to be more enduring, where burnout levels continue to remain low three weeks after returning from vacation (Etzion, 2003). This phenomenon appeared to be consistent regardless of the vacation's duration. That is, Etzion (2003) found that short (7-10 days) and long (more than 10 days) vacations have the same ameliorative effect on job stress and burnout.

Sabbaticals

Further along the respite continuum might be a work experience in which the individual is performing work that is similar or related to their daily duties, but he or she is performing them in a different work environment. Sabbaticals are an example of this point on the respite continuum. Institutions of higher education typically use sabbaticals, defined as a leave of absence from a current job with some level of compensation for a specified time period, to allow faculty opportunity to pursue personal and professional improvement and development (Sima, 2000; Benshoff & Spruill, 2002). The first sabbatical was granted at Harvard University in 1880, and the practice has since been popular in academic settings (Sima, 2000). Explanations on the primary purpose of sabbatical leave are varied. However, it is clear that the leave should be productive and

focused, and provide long-range benefits to the sponsoring institution for which the individual works (Sima, 2000).

A study by Cook (1994) showed that sabbaticals offer numerous benefits to educators. For instance, Cook suggested that they prevent burnout, allow personal and professional growth, and rejuvenate teachers. This sentiment was echoed more recently where participants said that sabbaticals gave a renewed energy and enthusiasm for their work, as well as a relief from the stresses and strains of work (Benshoff & Spruill, 2002). Most participants stated a desire to improve morale (addressing burnout) amongst their reasons for taking a sabbatical. Additionally, sabbaticals offered the educators an opportunity expand their professional knowledge, and many participants reported improved teaching ability and increased productivity as a result (Benshoff & Spruill, 2002).

Work Change

Further toward the end of the respite continuum might be the performance of unrelated work in a different work environment. This would not include moonlighting (i.e., taking a second job), but rather, would be the performance of a different job in lieu of the worker's current job. This point falls on the far side of the respite continuum as it is not designed with the worker's relief in mind. One example of this is reserve service. Whereas vacations provide a complete break from work, and sabbaticals seek to enrich a worker's current job, reserve service involves rigorous work that is usually unrelated to the worker's current job. The traditional idea of work respites primarily in the form of vacations and sabbaticals was challenged by a study of the active reserve forces members of the Israeli Defense Forces. The researchers extended the current literature by exploring

the respite effects of annual reserve service on job stressors and burnout. They defined reserve service as a three to six week departure from civilian job duties to perform military duties in the Israeli Defense Forces on an annual basis. They found that this yearly duty actually had respite qualities equivalent to that of a vacation (Etzion et al., 1998).

Several interesting findings and theories resulted from that study. First, they found that despite the rigorous levels of work and lack of freedom experienced in this compulsory military service, the men reported higher levels of relief from chronic stressors and burnout than the control group who did not engage in military service. Second, they speculated that the experience of reserve service as a respite had the added benefit of being a respite from home stressors. Daily home duties such as work around the house and family interaction are not as prevalent during reserve service as they would be on a vacation or sabbatical due to the physical separation from home life. Several men stated that the reserve service offered them a legitimate way to escape these home pressures for a while. Third, they postulated that due to the all-male environment, camaraderie was high among the men and provided an additional source of relief. The men reported that it was an opportunity to "let off steam" in ways that are not typically allowable at work or home (Etzion et al., 1998).

The researchers also found two moderating effects that had a bearing on the level of stress and burnout relief experienced. The first moderator was the quality of the reserve service experience. If one of the participants had an overall negative experience during his annual service, he was not able to enjoy the full effects of relief from chronic job stressors, and thus, burnout. The second moderator was the level of detachment

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experienced by the participant. The more detached he was from his normal job stressors, the greater the relief from job stressors and burnout. However, if he was expected to keep contact with his workplace, the respite effect was lowered. The increased reliance on communication technologies (electronic mail, fax, cellular phones) makes detachment difficult. (Etzion et al., 1998) These moderating effects, however, are not unlike the variables that can lessen the positive effects of vacations and sabbaticals. For instance, in one study Eden (1990) found that length or quality of a vacation, or the presence of a chaotic home life, might reduce the ameliorative effects of the break from work.

Current Study

At the far end of the respite continuum might be identical work performed in a different environment. Active duty military deployments fall at this point of the continuum. Active duty military deployments refer to any temporary relocation of active duty military personnel for purposes of accomplishing certain military tasks. Though the connection may seem small, vacations hold similarity to deployments in that they provide a time away from normal job duties. The differences between vacations and deployments are much greater than the similarities, the foremost difference being that deployed personnel are expected to work, whereas working on vacation is optional. In that manner, deployments hold a stronger resemblance to the sabbatical of the civilian world and reserve service. Much like a sabbatical, they are a time away from normal duties to perform other duties related to, but not necessarily the same as, day-to-day job duties. Furthermore, these duties are performed in a different job environment. In a way, deployments can be viewed as the sabbaticals of the military world. Clearly deployments

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hold the strongest similarities to active reserve service. The nature and intensity of the work, and the military environment are very close, if not identical.

The unique contributions of Etzion and colleagues (1998) beg for further research in this area of military service serving as source a respite. Specifically, they implore a study of the respite effects of active duty military deployments on chronic job stressors and burnout. In this study, active duty military deployments were confined to the experiences of personnel in acquisition support career fields, filling positions overseas for a period of at least 90 days. The researcher hypothesized that deployments can have the same positive effects as vacations, sabbaticals, and active reserve service. The specific predictions were that deployments will provide an opportunity for relief from daily job stressors and burnout and will increase overall job satisfaction, organizational commitment, and self-efficacy. The following chapters detail this study's methodology and results.

Chapter 2

Methodology

To accomplish this study, a questionnaire was developed and administered to active duty Air Force acquisition support personnel deploying within the timeframe of the study. The questionnaire measured a combination of antecedents of stress, burnout, and organizational consequences of burnout. Specifically, the variables measured were burnout, emotional exhaustion, role conflict, role ambiguity, self-efficacy, organizational commitment, and job satisfaction. This chapter discusses the details of the sample, procedure, measures, and analysis used to conduct this study.

Sample

This study examined acquisition support personnel that were scheduled to deploy and those that had returned from a deployment. The two career fields captured under this rubric of acquisition support were contracting and finance. In particular, the study focused on those active duty contracting and finance personnel that were preparing to deploy, and those recently returned from a deployment. In addition, this study attempted to include a control group of matched counterparts located at the same home stations of the deployed individuals. However, the researcher was unable to identify an adequate number of non-deploying counterparts ($n = 6$), and, therefore, their data was left out of the data analysis.

The sample of participants was generated using a network sampling technique. In its simplest form, a network sample is developed by asking a group of key informants to identify individuals that can be approached to participate. Then, each individual that is initially approached is asked to identify others that can be approached. This practice is

repeated until the potential pool of participants is exhausted. This procedure has proved useful in generating samples of individuals who it would be difficult, if not impossible, to access in a more conventional way. Johnson and colleagues (2002) used this technique to identify intravenous drug users and their injection partners in seven Washington DC communities. In a more traditional management study, Tepper and colleagues (1998) found this approach was an economical and efficient means to acquire a heterogeneous sample of full-time employees as they attempted to develop a general instrument to assess resistance tactics used by employees.

In the current study, the initial group of the deploying personnel was provided by a key group of informants at the office of the Undersecretary of the Air Force for Acquisitions. Additional names were provided by various Air Force Major Commands and their respective finance and contracting career field managers. In all, the sample consisted of 74 individuals surveyed before their deployment (27 contracting and 47 finance) and 34 surveyed after a deployment (16 contracting and 18 finance).

Demographic information was collected on all participants. Basic information on age and gender was collected. The mean age for the 74 individuals surveyed before their deployment was 32.5 years. The mean age for the post-deployment group was 33.1. The pre-deployment sample consisted of 51 men (69%) and 23 females (31%). The post-deployment sample contained 23 men (68%) and 11 females (32 %). In addition, participants reported their career field and their experience in that career field. For the contracting pre-deployment sample, the average number of years of experience in contracting was 5.2 years. For the finance pre-deployment sample, the average number of years in finance was 10 years. The post-deployment contracting sample yielded an

average of 5.9 years of experience. The post-deployment finance sample had an average of 9.3 years in finance.

Participants also reported their educational background by reporting their highest level of education completed. The education levels of the 74 pre-deployment participants were: 4 had some high school education, 16 completed high school, 4 completed high school with some college education, 16 had their associates degree, 14 completed their bachelor degree, 10 had their masters, and 12 did not specify their education level. Due to unforeseen technical difficulties with the on-line web survey, the researchers captured the educational background for 25 of the 34 post-deployment respondents. From these 25 individuals, the post-deployment participants' education levels were: 4 completed high school, 1 had completed some college, 13 had their associated degrees (1 person completed two associate degrees), 5 had their bachelor degrees, and 2 had attainted their master degree.

Considering that family issues may shape many of the stresses that members face at home and while deployed, participants were asked to describe their marital status and report number of children at home. There were questions pertaining to the frequency of deployments, duration of their last deployment, and the type of work performed during these deployments. For the group that recently returned from a deployment, the similarity between the participant's home station job and his or her deployment job was measured by asking the participant to rate the similarity of the two jobs on a 7-point Likert scale. The participants were also asked to rate their perceived quality of the deployment on a 5-point scale ranging from *Poor* to *Outstanding.* For the sample that recently returned from their active duty deployment, the average rating on the quality of

their latest deployment was 3.36. This equates to a rating of *Good* for the post-deployment respondents.

<center>*Procedure*</center>

Data were collected three times using a combination of paper and pencil and on-line questionnaires (see Appendix A for questionnaire). The paper and pencil questionnaires were administered in a group setting prior to the members' deployments. This administration yielded 61 completed surveys. The rest of the data were collected via the on-line survey. The data were grouped into two time categories. The Time 1 (T1) data were collected before the participants deployed and the Time 2 (T2) data were collected after the participants returned from their deployments. Questions for the pre- and post-deployment personnel were the same. The names of participants were collected in order to facilitate and support future research. Due to time constraints and the nature of the study performed during classroom responsibilities, it was impossible for the researcher to match the same sample results for periods T1 and T2. The researcher compared periods T1 and T2 for independent sample groups. The foundation has been laid for future researchers to conduct follow-on research where same-sample groups may be compared at times one and two.   All data that were collected were kept confidential and were viewed only by the researcher of the study and approved follow-on researchers from the Air Force Institute of Technology.

Common methods for bolstering response rates were used. First, participants were sent a message explaining the study; that is, participants were given forewarning of the questionnaire. This message, delivered by e-mail, explained the study's purpose, the confidential nature of the data, and the expectation that a questionnaire will follow. The

second e-mail thanked the participant for their time and for their consideration in completing the survey. This second e-mail also contained an active internet link that took the participant to the on-line questionnaire. The third e-mail was a follow-up e-mail that was sent to participants that agreed to be surveyed but had not completed the questionnaire. (See Appendix B for letters sent to participants). This particular method for seeking completed surveys was chosen based upon prior research for methods of achieving significant response rates. Response rates have been shown to be significantly higher when utilizing this three step procedure (Dillman, 1972). Two separate studies employing this method achieved a response rate of 75% (Dillman, 1972).

Measures

The questionnaire measured a number of variables. They included burnout, emotional exhaustion, role ambiguity, role conflict, self-efficacy, organizational commitment, and job satisfaction. In addition to measuring overall job satisfaction, the questionnaire included measures of four facets of job satisfaction, namely, satisfaction with the nature of work, co-workers, operating conditions, and contingent rewards. However, when the alpha coefficients for satisfaction with the nature of work were tested for this sample, an extremely low alpha was observed ($\alpha = .39$) and the entire variable was deleted from the data analysis. Each variable was measured using a 7-point Likert scale ranging from 1 = *Strongly Disagree* to 7 = *Strongly Agree*. Appendix A presents a paper version of the questionnaire.

Burnout

Burnout was measured using five items taken from Etzion and colleagues' (1998) study of job stressors and burnout in reserve service members. Their questionnaire was

derived from the Pines and Aronson Burnout Measure which assesses physical, emotional, and mental exhaustion (Etzion et al., 1998). Their use of this measure yielded coefficient alphas ranging from .88 to .93. Sample items include "To what extent do you feel overloaded at work?" and "To what extent are you able to take some time off temporarily when you are under pressure?" As the alpha coefficients were tested in this sample, an alpha of .52 was observed. However, when one item was deleted (i.e., item 38), the alpha improved to .67. The four remaining items were used to measure burnout.

Emotional Exhaustion

Emotional exhaustion, a subcomponent of burnout, was measured using the 12-item Emotional Exhaustion (EE) scale in the Maslach-Burnout Inventory (Maslach & Jackson, 1986). The Emotional Exhaustion scale measures an individual's feeling of being depleted of energy and an overall drained sensation resulting from excessive psychological demands (Maslach & Jackson, 1986). Sample items include "I feel emotionally drained from my work" and "I feel like I am at the end of my rope". Reliability for the Emotional Exhaustion measure of the Maslach-Burnout Inventory has been tested and has been shown to have the highest reliability of the Maslach-Burnout Inventory with a coefficient alpha of .88 (Drake & Yadama, 1995). In this sample, α was .91.

Role Conflict

Role conflict is commonly viewed as an imbalance between communicated expectations critical to a person's perception of role performance (Rizzo, House, & Lirtzman, 1970). Four items taken from Rizzo et al.'s (1970) role conflict and role ambiguity scale were used to measure role conflict. Sample items are "I work under

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incompatible policies and guidelines" and "I have to do things that should be done differently". Reliability of the role conflict construct by Jackson and Schuler (1985) was shown to have a coefficient alpha of .79. Similarly, a comparison of results from 13 studies showed that the role conflict scale developed by Rizzo et al. tended to be internally consistent with alpha coefficients ranging from .74 to .90 with a median of .82 (Shepherd & Fine, 2001). In this sample, α was .81.

Role Ambiguity

Role ambiguity is described as a situation in which an individual is not given clear direction concerning expectations for that individual as they relate to the organization (Rizzo et al., 1970). Role ambiguity was measured by four items developed by Rizzo et al. (1970). Sample items measuring role ambiguity are "I know exactly what is expected of me" and "I know what my responsibilities are". Similar to role conflict, reliability of the role ambiguity construct was tested by Jackson and Schuler's (1985). They found a corrected estimate of internal consistency to be .79 (i.e., coefficient alpha). A comparison of results from 18 studies showed the role ambiguity items taken from Rizzo et al.'s scale resulted in alpha coefficients that ranged from .74 to .90 with a median of .78 (Shepherd & Fine, 2001). In this sample, α was .82.

Self-efficacy

Wood and Bandura (1989) define self-efficacy as the capability to exercise the motivation, cognitive resources, and courses of action required to handle situational demands. Efficacy contributes to the control of one's level of stress when presented in difficult situations (Bandura, 1997). How people deal with these situations largely depend on how well they think they can cope (Bandura, 1997).

While Wood and Bandura suggest that self-efficacy is a situation-specific construct, many have recently suggested that it is a general disposition that indicates the extent to which one can handle all the challenges of life to include those presented in one's work. Taking this tact, an 8-item generalized self-efficacy scale developed by Judge and colleagues (1998) was used in this study. By using a generalized self-efficacy scale the researcher was able to measure one's self-actualized capability to handle perceived stressful situations. Sample items include "I usually feel I can handle the typical problems that come up in life" and "I often feel there is nothing I can do well". Judge et al. measured generalized self-efficacy in four samples and estimated the internal consistency of the scale, finding coefficient alphas ranging from .80 to .89 (Judge, Erez, & Thoreson 2003). In this sample, α was .64.

Organizational Commitment

Organizational commitment is defined as the overall strength of an individual's identification with and involvement in an organization (Porter, Steers, Mowday, & Boulain, 1974). The nine-item Porter et al. Organizational Commitment Questionnaire (OCQ) was used to measure organizational commitment (Porter et al., 1974). Sample items include "I am willing to put in a great deal of effort that is beyond normal expectations in order to help my organization be successful" and "I find that my values and organization's values are very similar". In a study by Bline and colleagues (1991) the 9-item Porter OCQ was shown to have a coefficient alpha of .92. In this sample, α was .91.

Overall Job Satisfaction

Job satisfaction refers to the degree in which people like their jobs (Spector, 1997). To measure overall job satisfaction, six items adapted from the Brayfield-Rothe Index of Job Satisfaction were used (Brayfield & Rothe, 1951). In a study conducted by Curry and colleagues (1986), the six items were found to have a coefficient alpha of .86. Sample items include "I find real enjoyment in my job" and "I would not consider taking another job". In this sample, α was .82.

Co-worker Satisfaction

This variable measures the relationship between the respondent and his or her co-workers. This relationship can add to job stress. Co-worker relations affect an employee's satisfaction with the job and intention of staying with that job (Nestor, 2001). Items measuring co-worker satisfaction were taken from Spector's (1997) Job Satisfaction Survey. A study conducted by Spector (1988) showed coefficient alphas with a range of .91 to .94. Some example items are "I like the people I work with" and "There is too much bickering and fighting at work". In this sample, α was .76.

Operating Conditions

Operating conditions measures the level of satisfaction with rules and procedures (Spector, 1997). Four items were used to measure operating conditions. These items were taken from Spector's (1997) Job Satisfaction Survey. A study conducted by Spector (1988) showed coefficient alphas with a range of .91 to .94. Sample items measuring operating conditions satisfaction include "I have too much to do at work" and "Many of our rules and procedures make doing a good job difficult". As the alpha coefficients were tested in this sample, an alpha of .54 was observed. However, when

one item was deleted (i.e., item 20), the alpha improved to .64. The three remaining

items were used to measure operating conditions.

Contingent Rewards

Contingent rewards reflects the extent to which individuals are satisfied with

rewards (not necessarily monetary) given for good performance (Spector, 1997). Items

measuring contingent rewards were taken from Spector's (1997) Job Satisfaction Survey.

A study conducted by Spector (1988) showed coefficient alphas with a range of .91 to

.94. Sample items measuring contingent rewards include "When I do a good job, I

receive the recognition for it that I should receive" and "I do not feel that the work I do is

appreciated".   In this sample, α was .82.

Analysis

To determine if active duty military deployments serve as a respite from home

station job stressors and burnout, the data were tested to see if the participants reported

lower levels of burnout and emotional exhaustion, lower perceived role ambiguity and

role conflict, increased self-efficacy, increased organizational commitment, and higher

job satisfaction compared to levels before deploying. An analysis of variance (ANOVA)

was conducted on the pre- and post deployment responses to determine if any of the

measured variables showed any statistically significant differences.

Summary of the Chapter

This chapter outlined the specific sample and procedures used to accomplish

this study. The researchers used a questionnaire to measure burnout, emotional

exhaustion, role conflict, role ambiguity, self-efficacy, organizational commitment, and

job satisfaction. The following chapters will discuss the findings of the questionnaire and

the results of the data analysis.

Chapter 3

Results

Variable Descriptives

In order to maintain clear and consistent results, several items on the questionnaire were reverse scored prior to the data analysis. The raw data were transformed such that all high scores were indicative of a desirable outcome and all low scores indicated an undesirable outcome. For example, in the raw data, an individual experiencing high levels of burnout out would answer item 31 ("To what extent do you feel overloaded at work") with a high number such as 6 (i.e., *Agree*) or 7 (i.e., *Strongly Agree*). However, once the data were transformed (reverse scored), his or her score would be changed to 2 (*Disagree*) or 1 (*Strongly Disagree*), respectively. In this way, it became consistent and clear in all variables whether or not the respondents had positive (or negative) perceptions, based on whether the scores were high (or low).

Descriptive statistics and correlations among the variables in the study are presented in Table 2. Many of the variables were significantly and relatively strongly related to one another. Not surprisingly, emotional exhaustion and burnout had the strongest positive correlation ($r = .77$, $p < .01$), and the relationship between operating conditions and burnout was the second strongest ($r = .66$, $p < .01$). Also expected was the positive correlation between role conflict and burnout ($r = .52$, $p < .01$), as well as the smaller but significant relationship between contingent rewards and burnout ($r = 0.43$, $p < .01$). All of these correlations seem to support the theory that burnout can result both from the presence of negative work conditions, as well as the absence of positive conditions.

Table 2. Descriptive Statistics and Correlation Matrix for Study Variables

Variable	*M*	*SD*	*α*	1	2	3	4	5	6	7	8	9	10
1. Contingent Rewards	4.31	1.29	0.82	--									
2. Operating Conditions	3.24	1.32	0.64	.30**	--								
3. Co-Workers	4.75	1.21	0.76	.45**	.23*	--							
4. Job Satisfaction	4.61	1.07	0.82	.28**	.02	.36**	--						
5. Emotional Exhaustion	4.39	1.37	0.91	.52**	.57**	.51**	.35**	--					
6. Role Conflict	4.10	1.25	0.81	.53**	.38**	.48**	.30**	.63**	--				
7. Role Ambiguity	5.11	1.18	0.82	.46**	.23*	.46**	.46**	.54**	.51**	--			
8. Organizational Commitment	4.60	1.26	0.91	.52**	.10	.54**	.60**	.42**	.41**	.54**	--		
9. Burnout	3.62	1.26	0.67	.43**	.66**	.49**	.12	.77**	.52**	.33**	.21*	--	
10. Self-efficacy	5.78	0.92	0.64	-.09**	-.04	-.03	.12	.11	.10	.16	.14	-.01	--

Note. These calculations are based on the entire sample (*N* = 108).
p < .05
**p* < .01

Interestingly, job satisfaction shared no significant relationship with burnout ($r =$ .12, $p > .05$). Research would suggest that a relationship between the two variables should be present (Wolpin et al., 1991). Also unexpected was the relatively small correlation between role ambiguity and burnout ($r = .33, p < .01$), as well as between emotional exhaustion and job satisfaction ($r = .35, p < .01$).

<center>*Pre- and Post-Deployment Comparisons*</center>

To test the extent to which active duty military deployments may serve as a respite from home station job stressors and burnout, an analysis of variance was conducted on the pre- and post-deployment groups to determine if any significant differences were present. Based on previous research (e.g., Etzion et al., 1998; Eden, 1990; Westman & Etzion, 2001; Benshoff & Spruill, 2002), it was hypothesized that the pre-deployment group would report lower scores when compared to the post-deployment group. Table 3 summarizes mean variable comparisons between the two groups. When the pre-deployment group was compared to the post-deployment group, no significant differences were observed in any of the variables with the exception of self-efficacy ($p <$ .01). With that said, several variables behaved as expected (i.e., the post deployment group reported higher scores than the pre-deployment group). Of these variables, contingent rewards and co-worker satisfaction had the largest difference. The pre-deployment group reported lower perceptions of contingent rewards ($M = 4.19, SD =$ 1.33) than the post-deployment group ($M = 4.57, SD = 1.15$). The same difference was observed between the pre-deployment group's reported co-worker satisfaction ($M = 4.63,$ $SD = 1.26$) and the post-deployment group's perceptions ($M = 5.01, SD = 1.05$).

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Table 3. One-Way Analysis of Variance of Pre- and Post-Deployment Groups

	Pre-Deployment		Post-Deployment		Significance		Hypothesized
	M	*SD*	*M*	*SD*	(*p*-value)	Change	Outcome[a]
1. Contingent Rewards	4.19	1.33	4.57	1.15	.15	Increase	Yes
2. Operating Conditions	3.28	1.35	3.15	1.25	.62	Decrease	No
3. Co-Workers	4.63	1.26	5.01	1.05	.13	Increase	Yes
4. Job Satisfaction	4.67	1.02	4.49	1.17	.40	Decrease	No
5. Emotional Exhaustion	4.35	1.37	4.47	1.38	.68	Increase	Yes
6. Role Conflict	4.04	1.18	4.25	1.39	.41	Increase	Yes
7. Role Ambiguity	5.15	1.11	5.01	1.32	.58	Decrease	No
8. Organizational Commitment	4.62	1.22	4.56	1.37	.83	Decrease	No
9. Burnout	3.56	1.24	3.75	1.33	.47	Increase	Yes
10. Self-efficacy	6.15	0.81	4.96	0.51	.00*	Decrease	No

Note. Pre-deployment sample size = 74; Post-deployment sample size = 34

[a]Applicable items were reverse scored such that a high score was indicative of a desired (positive) outcome

p < 0.01

Only a slight difference in burnout scores were observed between the pre-deployment group ($M = 3.56$, $SD = 1.24$) and the post-deployment group ($M = 3.75$, $SD = 1.33$).

Many results were unexpected. That is, the post-deployment group reported lower scores than the pre-deployment group. Most dramatic was the significant ($p < .01$) difference observed between the pre-deployment group's perceptions of self-efficacy ($M = 6.15$, $SD = 0.81$) and the post-deployment group's perceptions ($M = 4.96$, $SD = 0.51$). Summarizing the statistically insignificant findings but those with unexpected differences between the pre- and post-deployment groups, job satisfaction and role ambiguity were lower among the post-deployment group. Specifically, the pre-deployment group reported higher perceptions of job satisfaction ($M = 4.67$, $SD = 1.02$) than the post-deployment group ($M = 4.49$, $SD = 1.17$). The same was true for perceptions of role ambiguity as the pre-deployment group's scores ($M = 5.15$, $SD = 1.11$) were higher than the post-deployment group' scores ($M = 5.01$, $SD = 1.32$).

Summary of the Chapter

This chapter detailed the results of the data analysis conducted on pre- and post-deployment groups. Indeed, many of the data results, such as variable correlations and decreases in reported burnout levels in the post-deployment group, were as hypothesized. However, several findings were quite unexpected. The following chapter provides a discussion of these findings and possible insights into their meanings.

Chapter 4

Discussion and Conclusions

The purpose of this study was to extend the research on burnout out by examining the possible respite effects of active duty military deployments on job stress and burnout. While study limitations (discussed in the following section) prevented drawing conclusions with statistical significance about most observations, several interesting findings were discovered.

Though the differences were small, the data showed that burnout was lower for those in the post-deployment group when compared to the pre-deployment group. This result is completely counterintuitive considering the work conducted during the respondents' deployments was most likely taxing and the conditions where the work is done is most likely austere. However, reduced levels in burnout may be explained by the worker's opportunity to "break away" from the routine of their home station work stressors. This break, a respite of sorts, also provides the worker with the occasion to gain a new perspective on their job due to the changed environment. The new perspective, coupled with the reduction of chronic stress may have the effect of reenergizing the worker to meet the daily challenges of their home station job.

While this study did not test for causality, the changes in contingent rewards, co-worker satisfaction, and role conflict also seem to support the research on burnout. The increase in contingent rewards and coworker satisfaction, as well as the decrease in role conflict align with the literature on their respective roles as antecedents to stress and burnout (Kanner et al., 1978; Cordes & Dougherty, 1993; Wolpin et al., 1991; Boles et

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al., 2000). Thus, it would be expected that as burnout decreases perceptions of rewards, co-workers, and role conflict would change accordingly.

In contrast to these predicted results, several unanticipated outcomes were observed. Most interesting was the statistically significant decrease in self-efficacy reported by the post-deployment group. In a military environment it would be expected that the mission-oriented nature of a deployment would increase an individual's job knowledge and, consequently, job and self confidence. This, however, was not the case for this sample. One possible explanation for this result is a lack of pre-deployment training that may have left the individual feeling under-prepared for the rigorous job demands faced during the deployment. Upon returning to his or her home station, he or she may be feeling some residual insecurity about their job due to their deployment experience.

Another surprising observation was the decrease in job satisfaction in the post-deployment group. The hypothesized outcome of a deployment would be an increase in job satisfaction due to the break from routine job stressors. Additionally, factors such as the opportunity to be close to the primary mission of the Air Force would be expected to increase an individual's patriotism and sense of personal accomplishment, and, thus, job satisfaction. However, the post-deployment group was actually asked to report satisfaction with their home station job rather than the job done at their deployment locations. It is possible that during their deployment the proximity to the primary Air Force mission increased their job satisfaction, and their departure from that environment and return to their daily routine subsequently decreased their job satisfaction. Of course, it is also possible that their deployment experience only increased their overall life

stressors (e.g., family conflicts arose and foreign cultures presented challenges) and, therefore, lowered their satisfaction with their job as it was the cause of these additional stressors. The latter may also provide an explanation for the slight decrease in organizational commitment.

Implications

With all of that said, these findings provide military leaders with several pieces of information. For instance, though deployments have often been viewed as more of a detriment than a benefit to the individual, this may not be the case. The relatively small differences in most pre- and post-deployment group variable scores may indicate that deployments have little to no effect on military members' overall perceptions of their job and work experience. Additionally, members may actually gain personal benefits by going on deployments. These benefits might include reduced levels of chronic job stress and burnout, new perspectives, and an increased sense of personal accomplishment. These findings also might suggest, however, some areas for improvement. They may support the need to examine the differences between operations in a deployed environment and operations at home stations. Perhaps finding ways to make the home station more mission-oriented like deployment environments are may improve members' overall job satisfaction. Additionally, the lower levels of self-efficacy reported by the post-deployment group might signify a need to improve pre-deployment preparations, as well as overall home station job training.

Limitations

No study is perfect and without limitations. The researcher approached this study with the understanding that the nature of the study would present several limitations. The

scope of this research was limited to active duty contracting and finance personnel in the United States Air Force who were eligible for a deployment between June and December of 2003. The deployments had to be a minimum duration of three months.

While the sample was selected purposefully, the restrictive scope of this research created several limitations. First, the finite timeframe for data collection made it impossible to find an adequate number of participants that could be surveyed both pre- and post-deployment. Consequently, the researcher had to compare two independent groups. Also, as only two career fields were surveyed the researcher faced the limitation of finding an adequate amount of qualifying participants. Indeed these two factors may have played the largest role in the unexpected and statistically insignificant results. Comparing the reported results of the same individual both before and after his or her deployment would have added some control to the experimental design and may have reduced some of the confounding variables (e.g., demographics and home station environment). A larger sample would have also increased the probability of drawing conclusions with statistical significance. Second, because the Department of Defense (DoD) is comprised of four services and a multitude of career fields, the generalizability of the results from the selected career fields may be limited. The particular career fields surveyed may not be representative of other DoD military career fields or organizations (Witt, 1991; Yousef, 2000). For instance, the deployment experience of an Army sniper may be quite different than the deployment experience of an Air Force contracting officer. While the sniper would purposefully engage the enemy in hostile settings, ideally the contracting officer would not engage the enemy at all. Rather, he or she would primarily experience a business environment with local contractors.

Consequently, the respite effects of a deployment may differ significantly as the sniper is undoubtedly experiencing a higher level of stress than the contracting officer. Third, the initial goal to survey participants both before and after their deployments prevented the surveys from being anonymous. Consequently, participants may have been less likely to provide full, open and honest feedback. Fourth, a limitation stems from the implications of self-reporting. The data relied on the self-reporting of participants rather than firsthand observation. This self-reporting lends to the possibility of bias introduced by the respondent, such as inflation of survey responses. Fifth, due to a limited amount of time and resources, this study did not assess extra-organizational variables that may relate to job stress and burnout. Countless factors such as marital status, age of children, part-time work outside of the military, and financial situation can alter the respite qualities associated with a deployment. The possibility exists that some extra-organizational variables may account for some of the unexpected data results from the pre and post-deployment groups (Drory & Shamir, 1988).

Future Research

While the results of this particular study are inconclusive, it lays the groundwork for future research. This research will be facilitated by this study's development of a customized questionnaire suitable for military use. The high coefficients alphas of the survey variables indicate that it is a reliable instrument for measuring the study variables. Future research could use this tool with, perhaps, more conclusive results by conducting a similar study that surveys the same participants both pre- and post-deployment. To reach even more relevant results, a control group of matched counterparts from the same home stations who do not deploy during the same time period could be included in the study.

This will enable greater insight into whether or not the variable changes in deployed individuals are a result of the deployment. Expanding the post-deployment survey to include a detailed assessment of the deployment work environment may also add insight into the results. Additionally, the research could be expanded to a broader cross-section of career fields to achieve a larger sample size and more generalizable results.

Conclusion

This study presents an opportunity for the Air Force to learn more about the effects of deployments on its military members. The researcher hoped to find a relationship between deploying and the level of stress and burnout experienced by military members at their home station jobs. Ideally, the researcher hoped to find a lower stress and burnout level in participants after returning from their deployments to support the theory that active duty military deployments can have an ameliorative effect on home station job stressors and burnout. The researcher found evidence to support some of her hypothesis, but it cannot be concluded with any statistical significance.

Appendix A

Participant Questionnaire

Reverse scored items: 3, 6, 9, 11, 13, 14, 16, 19, 20, 22, 25, 26, 27, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, 41, 43, 45, 46, and 48

Active Duty Military Deployments: A Respite from Job Stressors and Burnout for Air Force Acquisition Support Personnel

Purpose: The presence of chronic job stressors in the workplace can lead to burnout. Vacations have been used as the traditional relief from such stressors. However, recent research has suggested that work-related sabbaticals may serve the same purpose. This questionnaire seeks to expand on this research by applying the same theory to active duty military deployments within the Air Force Acquisition Support community. Recent Air Force policies have increased the number of deployment opportunities that military members can expect to experience. Consequently, it is of interest to see if, in addition to accomplishing the mission, these deployments will have a beneficial effect on military members.

Participation. We would greatly appreciate your completing this survey. Your participation is COMPLETELY VOLUNTARY. However, your input is important for us to understand the possible effects of active duty deployments on job stressors and burnout. You may withdraw from this study at any time without penalty, and any data that have been collected about you, as long as those data are identifiable, can be withdrawn by contacting either Capt Tonya Bronson or Capt Trevor Sthultz. Your decision to participate or withdraw will not jeopardize your relationship with your organization, the Air Force Institute of Technology, the Air Force, or the Department of Defense.

Confidentiality. ALL ANSWERS ARE **STRICTLY CONFIDENTIAL.** No one other than Major Daniel Holt (research advisor at the Air Force Institute of Technology which is an organization independent of your organization), Capt Bronson, or Capt Sthultz will ever see your questionnaire. Findings will be reported without specific ties to names or organizations. We ask for some demographic and unit information in order to interpret results more accurately, and in order to link responses for an entire unit. Reports summarizing trends in large groups may be published. Although no one will have access to your data, your name is needed so that we can match your responses with those provided in a second questionnaire that will be administered in a few months. This second questionnaire will contain many of the same items included in this questionnaire so that we can assess your feelings about the reorganization after it is put into place.

Because this is a web-based questionnaire, certain precautions have been built into the database to ensure that your confidentiality is protected. First, the questionnaire and database are not stored on your organization's server; instead, the questionnaire and database will be stored on the Air Force Institute of Technology's secure server. This makes it impossible for your leaders to circumvent the surveyors and try to access any identifiable data without their knowledge. Second, you will only have access to your responses. Finally, the database is protected by a password that is known only by the aforementioned surveyors making it impossible to access your data. Still, if you don't feel comfortable completing the on-line version of the questionnaire you can print a paper version of the questionnaire, complete it, and return it directly to Capt Bronson or Capt Sthultz

I have read the above information and am willing to participate in the study.

Last Name (Print)	First Name	Office Symbol

Contact information: If you have any questions or comments about the survey, contact Capt Tonya Bronson or Capt Trevor Sthultz at the number, fax, mailing address, or e-mail address.

Capt Tonya Bronson

Capt Trevor Sthultz

AFIT/ENV BLDG 640 Box 4558

2950 Hobson Way
Wright-Patterson AFB OH 45433-7765
Email: tonya.bronson@afit.edu
trevor.sthultz@afit.edu
Phone: DSN 785-2998, commercial (937) 255-2998
Fax: DSN 986-4699; commercial (937) 656-4699

Please remove this page and retain for your record

The following information is provided as required by the Privacy Act of 1974:

Purpose: To obtain information regarding effects of contracting deployments.

Routine Use: The survey results will be used to provide additional insight into the possible respite effects of deployments for contracting personnel. A final report will be provided to participating organizations. No analysis of individual responses will be conducted and only members of the Air Force Institute of Technology research team will be permitted access to the raw data.

Participation: Participation is VOLUNTARY. No adverse action will be taken against any member who does not participate in this survey or who does not complete any part of the survey.

INSTRUCTIONS

- Base your answers on your own thoughts & experiences
- Please print your answers clearly when asked to write in a response or when providing comments
- Make dark marks when asked to use specific response options (feel free to use an ink pen)
- Avoid stray marks and if you make corrections erase marks completely or clearly indicate the errant response if you use an ink pen

MARKING EXAMPLES

Right

●

Wrong

⊗ ⊘ ⊙

Section I
ATTITUDES TOWARD YOUR JOB

We would like to understand how you *GENERALLY FEEL* about your current job. The following questions will help us do that. For each statement, please fill in the circle for the number that indicates the extent to which you agree the statement is true. Use the scale below for your responses.

① Strongly Disagree	② Disagree	③ Slightly Disagree	④ Neither Agree nor Disagree	⑤ Slightly Agree	⑥ Agree	⑦ Strongly Agree

1. I find real enjoyment in my job.   ① ② ③ ④ ⑤ ⑥ ⑦

2. When I do a good job, I receive the recognition for it that I should receive.   ① ② ③ ④ ⑤ ⑥ ⑦

3. There is too much bickering and fighting at work.   ① ② ③ ④ ⑤ ⑥ ⑦

4. I like my job better than the average worker does.   ① ② ③ ④ ⑤ ⑥ ⑦

5. I enjoy my co-workers.   ① ② ③ ④ ⑤ ⑥ ⑦

6. I do not feel that the work I do is appreciated.   ① ② ③ ④ ⑤ ⑥ ⑦

7. I feel a sense of pride in doing my job.   ① ② ③ ④ ⑤ ⑥ ⑦

8. I am seldom bored with my job.   ① ② ③ ④ ⑤ ⑥ ⑦

9. I have too much paperwork.   ① ② ③ ④ ⑤ ⑥ ⑦

10. I would not consider taking another job.   ① ② ③ ④ ⑤ ⑥ ⑦

11. There are few rewards for those who work here.   ① ② ③ ④ ⑤ ⑥ ⑦

12. Most days I am enthusiastic about my job.   ① ② ③ ④ ⑤ ⑥ ⑦

13. I sometimes feel my job is meaningless.   ① ② ③ ④ ⑤ ⑥ ⑦

14. I find I have to work hard at my job because of the incompetence of people I work with.   ① ② ③ ④ ⑤ ⑥ ⑦

15. I feel fairly satisfied with my job.   ① ② ③ ④ ⑤ ⑥ ⑦

16. I have too much to do at work.   ① ② ③ ④ ⑤ ⑥ ⑦

① Strongly Disagree	② Disagree	③ Slightly Disagree	④ Neither Agree nor Disagree	⑤ Slightly Agree	⑥ Agree	⑦ Strongly Agree

17. I like doing the things I do at work. ① ② ③ ④ ⑤ ⑥ ⑦

18. I like the people I work with. ① ② ③ ④ ⑤ ⑥ ⑦

19. I don't feel my efforts are rewarded the way they should be. ① ② ③ ④ ⑤ ⑥ ⑦

20. Many of our rules and procedures make doing a good job difficult. ① ② ③ ④ ⑤ ⑥ ⑦

21. My job is enjoyable. ① ② ③ ④ ⑤ ⑥ ⑦

Section II
GENERAL FEELINGS ABOUT JOB TENSION

We would like to understand how you feel *GENERALLY FEEL* about tension resulting from your job. The following questions will help us do that. For each statement, please fill in the circle for the number that indicates the extent to which you agree the statement is true. Use the scale below for your responses.

① Strongly Disagree	② Disagree	③ Slightly Disagree	④ Neither Agree nor Disagree	⑤ Slightly Agree	⑥ Agree	⑦ Strongly Agree

1. I have to do things that should be done differently. ① ② ③ ④ ⑤ ⑥ ⑦

2. I know exactly what is expected of me. ① ② ③ ④ ⑤ ⑥ ⑦

3. I feel certain about how much authority I have. ① ② ③ ④ ⑤ ⑥ ⑦

4. I receive incompatible requests from two or more people. ① ② ③ ④ ⑤ ⑥ ⑦

5. I have to work under vague directions or orders. ① ② ③ ④ ⑤ ⑥ ⑦

6. I work under incompatible policies and guidelines. ① ② ③ ④ ⑤ ⑥ ⑦

7. I know what my responsibilities are. ① ② ③ ④ ⑤ ⑥ ⑦

8. I have clear, planned goals and objectives for my job. ① ② ③ ④ ⑤ ⑥ ⑦

Section III
GENERAL FEELINGS ABOUT WORK LOAD

We would like to understand how you feel *GENERALLY FEEL* about work load resulting from your home station job. The following questions will help us do that. For each statement, please fill in the circle for the number that indicates the extent to which you agree the statement is true. Use the scale below for your responses.

① Strongly Disagree	② Disagree	③ Slightly Disagree	④ Neither Agree nor Disagree	⑤ Slightly Agree		⑥ Agree		⑦ Strongly Agree

1. I feel emotionally drained from my work.	①	②	③	④	⑤	⑥	⑦	
2. To what extent do you feel overloaded at work?	①	②	③	④	⑤	⑥	⑦	
3. I feel fatigued when I get up in the morning and have to face another day on the job.	①	②	③	④	⑤	⑥	⑦	
4. I feel I am working too hard on my job.	①	②	③	④	⑤	⑥	⑦	
5. To what extent do home station bureaucratic pressures and administrative hassles hamper you in achieving your work objectives?	①	②	③	④	⑤	⑥	⑦	
6. I feel frustrated by my job.	①	②	③	④	⑤	⑥	⑦	
7. I feel like I am at the end of my rope.	①	②	③	④	⑤	⑥	⑦	
8. Working with people all day is really a strain for me.	①	②	③	④	⑤	⑥	⑦	
9. To what extent do you feel you are under-loaded? (too many simple tasks)	①	②	③	④	⑤	⑥	⑦	
10. To what extent are you able to take some time off temporarily when you are under pressure?	①	②	③	④	⑤	⑥	⑦	
11. I feel burned out from my work.	①	②	③	④	⑤	⑥	⑦	
12. To what extent do you experience stress in terms of responsibilities and deadlines at work?	①	②	③	④	⑤	⑥	⑦	

Section IV
GENERAL FEELINGS ABOUT JOB CONFIDENCE

We would like to understand how you feel *GENERALLY FEEL* about confidence in
performing your home station job. The following questions will help us do that.
For each statement, please fill in the circle for the number that indicates the extent
to which you agree the statement is true. Use the scale below for your responses.

① Strongly Disagree	② Disagree	③ Slightly Disagree	④ Neither Agree nor Disagree	⑤ Slightly Agree		⑥ Agree		⑦ Strongly Agree

1. I am strong enough to overcome life's struggles. ① ② ③ ④ ⑤ ⑥ ⑦

2. At root, I am a weak person. ① ② ③ ④ ⑤ ⑥ ⑦

3. I can handle the situations that life brings. ① ② ③ ④ ⑤ ⑥ ⑦

4. I usually feel that I am an unsuccessful person. ① ② ③ ④ ⑤ ⑥ ⑦

5. I often feel that there is nothing that I can do well. ① ② ③ ④ ⑤ ⑥ ⑦

6. I feel competent to deal effectively with the real
    world. ① ② ③ ④ ⑤ ⑥ ⑦

7. I often feel like a failure. ① ② ③ ④ ⑤ ⑥ ⑦

8. I usually feel I can handle the typical problems that
    come up in life. ① ② ③ ④ ⑤ ⑥ ⑦

Section V
GENERAL FEELINGS ABOUT ORGANIZATIONAL COMMITMENT

We would like to understand how you feel *GENERALLY FEEL* about your level of commitment to the Air Force as a result from your deployment. The following questions will help us do that. For each statement, please fill in the circle for the number that indicates the extent to which you agree the statement is true. Please refer to the Air Force when the term organization is used. Use the scale below for your responses.

① Strongly Disagree	② Disagree	③ Slightly Disagree	④ Neither Agree nor Disagree	⑤ Slightly Agree	⑥ Agree	⑦ Strongly Agree

1. I am willing to put in a great deal of effort that is beyond normal expectations in order to help my organization be successful. ① ② ③ ④ ⑤ ⑥ ⑦

2. I talk up this organization to my friends as a great organization to work for. ① ② ③ ④ ⑤ ⑥ ⑦

3. I really care about the fate of this organization. ① ② ③ ④ ⑤ ⑥ ⑦

4. I am extremely glad that I chose this organization to work for over others that I was considering at the time I chose. ① ② ③ ④ ⑤ ⑥ ⑦

5. I would accept almost any type of job assignment in order to keep working for this organization. ① ② ③ ④ ⑤ ⑥ ⑦

6. This organization really inspires the very best in me in the way of job performance. ① ② ③ ④ ⑤ ⑥ ⑦

7. I find that my values and organization's values are very similar. ① ② ③ ④ ⑤ ⑥ ⑦

8. I am proud to tell others that I am part of this organization. ① ② ③ ④ ⑤ ⑥ ⑦

9. For me this is the best possible organizations for which to work. ① ② ③ ④ ⑤ ⑥ ⑦

Section VI
BACKGROUND INFORMATION

This section contains items regarding your personal characteristics. These items are very important for statistical purposes. Respond to each item by WRITING IN THE INFORMATION requested or CHECKING THE BOX ☑ that best describes you.

1. Your current AFSC:_____

2. Time in the finance/contracting career field: _____ years _____ months

3. How long have you been in the Air Force? _____ years _____ months

4. Please indicate the highest level of education that you have attained.

Some High School	**Master's degree**
High School Diploma	**Doctorate degree**
Associate's degree	**Other (please specify)**
Bachelor's degree	_____

5. What is your age? _____ years

6. What is your gender?

Male   **Female**

7. What is your marital status?

Single   **Married**   **Divorced**   **Engaged**

8. How many kids do you have at home?

0   **1-2**   **3-4**   **5-6**   **More than 6**

9. How many times have you deployed in the past two years?
(We define the term "deployment" as time away from home station for 60+ continuous days to perform work-related operations.)

1 time   2 times   3 times   4 times   More than 4 times

10. How long was your last deployment? _____ months   _____ days

11. Were you performing your main home station job during your deployment?

Yes   No

12. To what extent was your home station job similar to your role during you deployment?
   (Please fill in the appropriate bubble.)

Jobs were   Jobs were

completely   <=====   =====> the same
different

①	②	③	④	⑤	⑥	⑦
Strongly Disagree	**Disagree**	**Slightly Disagree**	**Neither Agree nor Disagree**	**Slightly Agree**	**Agree**	**Strongly Agree**

13. If your home station job and deployed jobs were different, what was your deployed job?

_____

_____

14. How would you rate the overall quality of your last deployment?

Poor   Fair   Good   Excellent   Outstanding

15. If given the choice to deploy within the coming year on a deployment similar to your last one, would you accept?

Yes   No

16. Would you recommend others to experience a deployment similar to your last deployment?

Yes   **No**

THANK YOU FOR PARTICIPATING

ALL INFORMATION IS STRICTLY CONFIDENTIAL

QUESTIONNAIRE CRITIQUE

It is very important that I know your feelings with regards to this questionnaire so that I can improve it and get even more accurate and useful information. In the space below, please tell me what you think about this questionnaire. Again, your honest and frank response is needed.

Some issues that you may want to address in your comments are:

1. Suggestions for how this questionnaire could have gotten better information about your flight as a cohesive group?

2. Were the questions clear to you?

3. Is there anything that would have made your responding easier?

4. Was something about your specific experience that was not asked that would be important for you or for others, and should be included?

USE THE BACK OF THIS SHEET IF ADDITIONAL SPACE IS NEEDED

Thank You for your Participation!

Appendix B

Letters to Participants

Initial Letter

AFIT/ENV
Bldg 640
2950 Hobson Way
Wright-Patterson AFB OH 45433

Dear acquisitions support personnel,

We need your assistance! We are exploring the effects deployments have on home station job stressors and burnout for the Office of the Undersecretary of the Air Force for Acquisitions. To do this we are asking for feedback from active duty Air Force personnel in the contracting, finance, and acquisitions career fields who are either about to deploy, have recently returned from a deployment, or are not deploying at all in the near future.

Because you have been identified a participant, we will be sending you a link to a web-based questionnaire within the next two weeks and a link to a follow-up questionnaire in a few months. While your participation in this study is completely voluntary, every response is important for us to get a true understanding of how military deployments effect home station job stressors and burnout. So, we would greatly appreciate you taking a few minutes to complete the questionnaire and the follow-up.

We look forward to your feedback. Should you have any questions, please do not hesitate to contact us at tonya.bronson@afit.edu or trevor.sthultz@afit.edu. Thank you for your time and consideration of this matter.

Sincerely,

TONYA J. BRONSON, Captain, USAF
Graduate Student, Strategic Purchasing and Supply Chain Management
Air Force Institute of Technology

TREVOR T. STHULTZ, Captain, USAF
Graduate Student, Strategic Purchasing and Supply Chain Management
Air Force Institute of Technology

Letter with Survey Attachment

AFIT/ENV
Bldg 640
2950 Hobson Way
Wright-Patterson AFB OH 45433

Dear acquisitions support personnel,

We need your help! A couple of weeks ago we sent you an e-mail informing you of the study we are conducting exploring the effects deployments have on home station job stressors and burnout for the Office of the Undersecretary of the Air Force for Acquisitions.

To gather the information we have developed a brief questionnaire that can be completed by accessing the following link: http://en.afit.edu/Surveys/Sthultz/. Being Air Force professionals, we understand the demands on your time; so, we have developed a questionnaire that will only take you 20 minutes to complete. Please take a moment to open the website and review the purpose. In addition, we request your assistance in locating a peer in your office who will not be deploying within the next six months. Please forward this e-mail to a counterpart with similar job characteristics and responsibilities within your office.

When you look at the questionnaire, you will notice that we are asking you to provide your name. Your name is collected so that we can match the data you provide on this questionnaire with your responses on a second questionnaire that will be sent a few months later. Once your data has been matched, your name will be dropped from the survey. And, all of the answers you provide are strictly confidential.

Thank you in advance for your assistance with this study effort. Should you have any questions, please do not hesitate to contact us at tonya.bronson@afit.edu or trevor.sthultz@afit.edu.

Sincerely,

TONYA J. BRONSON, Captain, USAF
Graduate Student, Strategic Purchasing and Supply Chain Management
Air Force Institute of Technology

TREVOR T. STHULTZ, Captain, USAF
Graduate Student, Strategic Purchasing and Supply Chain Management
Air Force Institute of Technology

Follow-up Letter

AFIT/ENV
Bldg 640
2950 Hobson Way
Wright-Patterson AFB OH 45433

Dear acquisitions support personnel,

We recently sent you web-based questionnaire about your perceptions of your home station job. If you have completed the questionnaire, we thank you. If not, we urge you to take a few moments to access the following website and complete the questionnaire: http://en.afit.edu/Surveys/Sthultz/ .Also, please remember to forward this e-mail to a work counterpart with similar job characteristics and responsibilities within your office.

Your answers to this survey will help us better understand the effects deployments have on home station job stressors and burnout.   Every completed survey is important. Thank you again for your assistance. Should you have any questions, please do not hesitate to contact us at tonya.bronson@afit.edu or trevor.sthultz@afit.edu.

Sincerely,

TONYA J. BRONSON, Captain, USAF
Graduate Student, Strategic Purchasing and Supply Chain Management
Air Force Institute of Technology

TREVOR T. STHULTZ, Captain, USAF
Graduate Student, Strategic Purchasing and Supply Chain Management
Air Force Institute of Technology

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13. SUPPLEMENTARY NOTES

14. ABSTRACT

To explore the possible respite effects of deployments, active duty Air Force acquisition support personnel who were either scheduled to deploy (n = 74), or recently returned from deployment (n = 34) were surveyed. Analysis of variance compared the pre- and post-deployment group's perceived levels of burnout, emotional exhaustion, role ambiguity, role conflict, self-efficacy, organizational commitment, contingent rewards, operating conditions, co-worker satisfaction, and overall job satisfaction. Although the results indicated the differences were not large enough to be significant, many of the variables behaved as hypothesized. Specifically, burnout, emotional exhaustion, role conflict, contingent rewards, and co-worker satisfaction were all higher in the post-deployment group. Implications of the findings are discussed.

15. SUBJECT TERMS
　　Deployment, Air Force, Deployment, Stress, Job Satisfaction, Self-efficacy, Emotional Exhaustion, Role Ambiguity, Role Conflict, Organizational Commitment

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REPORT **U**	ABSTRACT **U**	c. THIS PAGE **U**	UU	63	19b. TELEPHONE NUMBER (Include area code) (937) 255-3636 x 4800, ext ; e-mail: Daniel.holt@afit.edu

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